

Amendments to the Claims

This listing of claims replaces all previous versions and listings of claims.

Listing of Claims:

1. (original) An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 90% or more identical to a sequence selected from the group consisting of:
 - (a) a polynucleotide fragment of SEQ ID NO:1 or a polynucleotide fragment of the cDNA sequence included in ATCC Deposit No: 209641 or 209691;
 - (b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209641 or 209691;
 - (c) a polynucleotide encoding a polypeptide domain of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209641 or 209691;
 - (d) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209641 or 209691;
 - (e) a polynucleotide encoding a polypeptide of SEQ ID NO:2 or the cDNA sequence included in ATCC Deposit No: 209641 or 209691 having biological activity;
 - (f) a polynucleotide which is a variant of SEQ ID NO:1;
 - (g) a polynucleotide which is an allelic variant of SEQ ID NO:1;
 - (h) a polynucleotide which encodes a species homologue of the SEQ ID NO:2; and
 - (i) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(h), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

2-10. (canceled)

11. (original) An isolated polypeptide comprising an amino acid sequence at least 90% or more identical to a sequence selected from the group consisting of:

- (a) a polypeptide fragment of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209641 or 209691;
- (b) a polypeptide fragment of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209641 or 209691 having biological activity;
- (c) a polypeptide domain of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209641 or 209691;
- (d) a polypeptide epitope of SEQ ID NO:2 or the encoded sequence included in ATCC Deposit No: 209641 or 209691;
- (e) a mature form of a secreted protein;
- (f) a full length secreted protein;
- (g) a variant of SEQ ID NO:2;
- (h) an allelic variant of SEQ ID NO:2; and
- (i) a species homologue of the SEQ ID NO:2.

12-16. (canceled)

17. (original) A method for preventing, treating, or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 11.

18. (original) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of a secreted protein comprising:

- (a) determining the presence or absence of a mutation in the polynucleotide of claim 1;
- (b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

19. (original) A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of a secreted protein comprising:

(a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample;

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

20-21. (canceled)

22. (original) A method of identifying an activity in a biological assay, wherein the method comprises:

(a) expressing SEQ ID NO:1 in a cell;

(b) isolating the supernatant;

(c) detecting an activity in a biological assay; and

(d) identifying the protein in the supernatant having the activity.

23. (original) The product produced by the method of claim 22.

24. (canceled)

25. (new) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

(a) amino acid residues +1 to 371 of SEQ ID NO:2;

(b) amino acid residues +23 to +371 of SEQ ID NO:2;

(c) amino acid residues +1 to +231 of SEQ ID NO:2;

(d) amino acid residues +23 to +225 of SEQ ID NO:2;

(e) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:2; and

(f) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2.

26. (new) The antibody or fragment thereof of claim 25 that specifically binds protein (a).
27. (new) The antibody or fragment thereof of claim 25 that specifically binds protein (b).
28. (new) The antibody or fragment thereof of claim 25 that specifically binds protein (c).
29. (new) The antibody or fragment thereof of claim 25 that specifically binds protein (d).
30. (new) The antibody or fragment thereof of claim 25 that specifically binds protein (e).
31. (new) The antibody or fragment thereof of claim 25 that specifically binds protein (f).
32. (new) The antibody or fragment thereof of claim 26 that specifically binds protein (b).
33. (new) The antibody or fragment thereof of claim 27 wherein said protein bound by said antibody or fragment thereof is glycosylated.
34. (new) The antibody or fragment thereof of claim 27, which is a human antibody.
35. (new) The antibody or fragment thereof of claim 27, which is a polyclonal antibody.

36. (new) The antibody or fragment thereof of claim 27, which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

37. (new) The antibody or fragment thereof of claim 27 which is labeled.

38. (new) The antibody or fragment thereof of claim 37 wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label;
- (d) a bioluminescent label; and
- (e) a prosthetic group.

39. (new) The antibody or fragment thereof of claim 27 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

40. (new) The antibody or fragment thereof of claim 27 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

41. (new) An isolated cell that produces the antibody or fragment thereof of claim 27.

42. (new) A hybridoma that produces the antibody or fragment thereof of claim 27.

43. (new) A method of detecting CRCGCL protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 27; and
- (b) detecting the CRCGCL protein in the biological sample.

44. (new) The method of claim 43 wherein the antibody or fragment thereof is a polyclonal antibody.

45. (new) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

- (a) a protein comprising amino acid residues +1 to 371 of SEQ ID NO:2;
- (b) a protein comprising amino acid residues +23 to +371 of SEQ ID NO:2;
- (c) a protein comprising amino acid residues +1 to +231 of SEQ ID NO:2;
- (d) a protein comprising amino acid residues +23 to +225 of SEQ ID NO:2;
- (e) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of SEQ ID NO:2; and
- (f) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues of SEQ ID NO:2;

wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

46. (new) The antibody or fragment thereof of claim 45 obtained from an animal immunized with protein (a).

47. (new) The antibody or fragment thereof of claim 45 obtained from an animal immunized with protein (b).

48. (new) The antibody or fragment thereof of claim 45 obtained from an animal immunized with protein (c).

49. (new) The antibody or fragment thereof of claim 45 obtained from an animal immunized with protein (d).

50. (new) The antibody or fragment thereof of claim 45 obtained from an animal immunized with protein (e).

51. (new) The antibody or fragment thereof of claim 45 obtained from an animal immunized with protein (f).

52. (new) The antibody or fragment thereof of claim 45, which is a monoclonal antibody.

53. (new) The antibody or fragment thereof of claim 45, which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

54. (new) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

- (a) a protein consisting of amino acid residues +1 to 371 of SEQ ID NO:2;
- (b) a protein consisting of amino acid residues +23 to +371 of SEQ ID NO:2;
- (c) a protein consisting of amino acid residues +1 to +231 of SEQ ID NO:2;
- (d) a protein consisting of amino acid residues +23 to +225 of SEQ ID NO:2;
- (e) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 30 contiguous amino acid residues of SEQ ID NO:2; and
- (f) a protein consisting of a portion of SEQ ID NO:2, wherein said portion comprises at least 50 contiguous amino acid residues of SEQ ID NO:2.

55. (new) The antibody or fragment thereof of claim 54 that specifically binds protein (a).

56. (new) The antibody or fragment thereof of claim 54 that specifically binds protein (b).

57. (new) The antibody or fragment thereof of claim 54 that specifically binds protein (c).

58. (new) The antibody or fragment thereof of claim 54 that specifically binds protein (d).

59. (new) The antibody or fragment thereof of claim 54 that specifically binds protein (e).

60. (new) The antibody or fragment thereof of claim 54 that specifically binds protein (f).

61. (new) The antibody or fragment thereof of claim 56 wherein said protein bound by said antibody or fragment thereof is glycosylated.

62. (new) The antibody or fragment thereof of claim 56, which is a human antibody.

63. (new) The antibody or fragment thereof of claim 56, which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

64. (new) The antibody or fragment thereof of claim 56, which is labeled.
65. (new) The antibody or fragment thereof of claim 64 wherein the label is selected from the group consisting of:
- (a) an enzyme;
 - (b) a fluorescent label;
 - (c) a luminescent label;
 - (d) a bioluminescent label; and
 - (e) a prosthetic group.
66. (new) The antibody or fragment thereof of claim 56 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.
67. (new) The antibody or fragment thereof of claim 56 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.
68. (new) An isolated cell that produces the antibody or fragment thereof of claim 56.
69. (new) A hybridoma that produces the antibody or fragment thereof of claim 56.
70. (new) A method of detecting CRCGCL protein in a biological sample comprising:
- (a) contacting the biological sample with the antibody or fragment thereof of claim 56; and
 - (b) detecting the CRCGCL protein in the biological sample.
71. (new) An isolated antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

- (a) a protein consisting of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (c) a protein consisting of the extracellular soluble domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641; and
- (e) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641.

72. (new) The antibody or fragment thereof of claim 71 that specifically binds protein (a).

73. (new) The antibody or fragment thereof of claim 71 that specifically binds protein (b).

74. (new) The antibody or fragment thereof of claim 71 that specifically binds protein (c).

75. (new) The antibody or fragment thereof of claim 71 that specifically binds protein (d).

76. (new) The antibody or fragment thereof of claim 71 that specifically binds protein (e).

77. (new) The antibody or fragment thereof of claim 72 that specifically binds protein (b).

78. (new) The antibody or fragment thereof of claim 73 wherein said protein bound by said antibody or fragment thereof is glycosylated.

79. (new) The antibody or fragment thereof of claim 73, which is a human antibody.

80. (new) The antibody or fragment thereof of claim 73, which is a polyclonal antibody.

81. (new) The antibody or fragment thereof of claim 73 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

82. (new) The antibody or fragment thereof of claim 73, which is labeled.

83. (new) The antibody or fragment thereof of claim 82 wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label;
- (d) a bioluminescent label; and
- (e) a prosthetic group.

84. (new) The antibody or fragment thereof of claim 73 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

85. (new) The antibody or fragment thereof of claim 73 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

86. (new) An isolated cell that produces the antibody or fragment thereof of claim 73.

87. (new) A hybridoma that produces the antibody or fragment thereof of claim 73.

88. (new) A method of detecting CRCGCL protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim 73; and
- (b) detecting the CRCGCL protein in the biological sample.

89. (new) The method of claim 88 wherein the antibody or fragment thereof is a polyclonal antibody.

90. (new) An isolated antibody or fragment thereof obtained from an animal that has been immunized with a protein selected from the group consisting of:

- (a) a protein comprising the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (b) a protein comprising the amino acid sequence of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (c) a protein comprising the amino acid sequence of the extracellular soluble domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;

(d) a protein comprising the amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641; and

(e) a protein comprising the amino acid sequence of at least 50 contiguous amino acid residues the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;

wherein said antibody or fragment thereof specifically binds to said amino acid sequence.

91. (new) The antibody or fragment thereof of claim 90 obtained from an animal immunized with protein (a).

92. (new) The antibody or fragment thereof of claim 90 obtained from an animal immunized with protein (b).

93. (new) The antibody or fragment thereof of claim 90 obtained from an animal immunized with protein (c).

94. (new) The antibody or fragment thereof of claim 90 obtained from an animal immunized with protein (d).

95. (new) The antibody or fragment thereof of claim 90 obtained from an animal immunized with protein (e).

96. (new) The antibody or fragment thereof of claim 90, which is a monoclonal antibody.

97. (new) The antibody or fragment thereof of claim 90, which is selected from the group consisting of:

(a) a chimeric antibody;

- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

98. (new) An isolated monoclonal antibody or fragment thereof that specifically binds to a protein selected from the group consisting of:

- (a) a protein consisting of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (b) a protein consisting of the mature form of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (c) a protein consisting of the extracellular soluble domain of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641;
- (d) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641, wherein said portion comprises at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641; and
- (e) a protein consisting of a portion of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641, wherein said portion comprises at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 209691 or 209641.

99. (new) The antibody or fragment thereof of claim 98 that specifically binds protein (a).

100. (new) The antibody or fragment thereof of claim 98 that specifically binds protein (b).

101. (new) The antibody or fragment thereof of claim 98 that specifically binds protein (c).

102. (new) The antibody or fragment thereof of claim 98 that specifically binds protein (d).

103. (new) The antibody or fragment thereof of claim 98 that specifically binds protein (e).

104. (new) The antibody or fragment thereof of claim 99 that specifically binds protein (b).

105. (new) The antibody or fragment thereof of claim 100 wherein said protein bound by said antibody or fragment thereof is glycosylated.

106. (new) The antibody or fragment thereof of claim 100, which is a human antibody.

107. (new) The antibody or fragment thereof of claim 100, which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) a Fab fragment.

108. (new) The antibody or fragment thereof of claim 100, which is labeled.

109. (new) The antibody or fragment thereof of claim 108, wherein the label is selected from the group consisting of:

- (a) an enzyme;
- (b) a fluorescent label;
- (c) a luminescent label;
- (d) a bioluminescent label; and

(e) a prosthetic group.

110. (new) The antibody or fragment thereof of claim 100 wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

111. (new) The antibody or fragment thereof of claim 100 wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.

112. (new) An isolated cell that produces the antibody or fragment thereof of claim 100.

113. (new) A hybridoma that produces the antibody or fragment thereof of claim 100.

114. (new) A method of detecting CRCGCL protein in a biological sample comprising:

(a) contacting the biological sample with the antibody or fragment thereof of claim 100; and

(b) detecting the CRCGCL protein in the biological sample.

115. (new) An isolated antibody or fragment thereof that specifically binds a CRCGCL protein expressed on the surface of a cell, said cell comprising a polynucleotide encoding amino acids +1 to +371 of SEQ ID NO:2 operably associated with a regulatory sequence that controls the expression of said polynucleotide.

116. (new) The antibody or fragment thereof of claim 115, which is a monoclonal antibody.

117. (new) The antibody or fragment thereof of claim 115, which is a human antibody.

118. (new) The antibody or fragment thereof of claim 115, which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a polyclonal antibody;
- (c) a humanized antibody;
- (d) a single chain antibody; and
- (e) a Fab fragment.

119. (new) The antibody or fragment thereof of claim 115, wherein said antibody or fragment thereof specifically binds to said protein in a Western blot.

120. (new) The antibody or fragment thereof of claim 115, wherein said antibody or fragment thereof specifically binds to said protein in an ELISA.